From:	Melissa Panger
To:	Nicholas Federoff
Cc:	Brian Anderson; Andrew Shelby; Bill Jacobs; Christine Hartless; Edward Odenkirchen; James Lin; Jean Holmes; Jennifer Gaines; Kristina Garber; Shannon Borges; William Erickson
Subject:	Re: review panel for diphacinone
Date:	05/26/2011 04:57 PM

It looks like it was based on genetics, geographic isolation, and morphology (color, not size)(this is from the natural history info from the SF Bay folder on the G:drive):

The CTS is now considered to be a separate species, *A. californiense*, because of its geographic isolation from *A. tigrinum*, differences in coloration between the two species, and the findings of recent genetic comparison studies (USFWS, 2003). These two species, *A. tigrinum* and *A. californiese* will hybridize if *A. tigrinum* are introduced into the habitat of *A. californiese* (USFWS, 2003). However, the range of the CTS does not naturally overlap with any other species of tiger salamander (USFWS, 2003).

▼ Nicholas Federoff---05/26/2011 01:41:25 PM---it would seem that the CTS was a subspecies (Ambystome tigrinum californiense) and now a completely

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To: Melissa Panger/DC/USEPA/US@EPA
Cc: Brian Anderson/DC/USEPA/US@EPA, Andrew Shelby/DC/USEPA/US@EPA, Bill Jacobs/DC/USEPA/US@EPA, Christine Hartless/DC/USEPA/US@EPA, Edward Odenkirchen/DC/USEPA/US@EPA, James Lin/DC/USEPA/US@EPA, Jean Holmes/DC/USEPA/US@EPA, Jennifer Gaines/DC/USEPA/US@EPA, Kristina Garber/DC/USEPA/US@EPA, Shannon Borges/DC/USEPA/US@EPA, William Erickson/DC/USEPA/US@EPA
Date: 05/26/2011 01:41 PM
Subject: Re: review panel for diphacinone

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it would seem that the CTS was a subspecies *(Ambystome tigrinum californiense*) and now a completely different species (*Ambystoma californiense*) than the Tiger Salamander (Ambystoma tigrinum). Is there a size difference between the 2? I am wondering what the reclassification was based on, genetics, morphology or both?

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▼ Melissa Panger---05/26/2011 12:50:48 PM---Based on the info below (provided by Catherine Aubee - back in Dec. 2009) it was decided that the CT

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Date: 05/26/2011 12:50 PM
Subject: Re: review panel for diphacinone

Based on the info below (provided by Catherine Aubee - back in Dec. 2009) it was decided that the CTS does eat small mammals (this I believe also went through the TBTT). The decision was to use the same prey-size calculations as the CRLF (i.e., 2/3 its body weight - as done in T-HERPS). The confusion has come about because this is one of the many errors that has been found in the SF Bay template, that hasn't been fixed:

> Hi Katrina,
>
> For the most part, herp life history references are difficult to obtain, because the species were described so long ago. Here are a couple for the California tiger salamander that might be helpful. These are for *in situ* specimens; captive accounts report small mammals in the diet more frequently.
>
> **********
> 1) Lemm, J. M. 2006. Field Guide to Amphibians and Reptiles of the San Diego Region. University of California Press. Berkeley.
>
> **********
> 2) A nice summary of tiger salamander diet from AmphibiaWeb (you may already have this; they snagged it from the book *Amphibian Declines*):
>
> For California tiger salamander (*Ambystoma californiense*, formerly *Ambystome tigrinum californiense*)
>
> Newly hatched larvae begin feeding after a few days. Larvae are gape-limited predators. Smaller larvae feed primarily on zooplankton (cladocerans and copepods); older larvae feed on tadpoles (primarily of Pacific treefrogs; Pseudacris regilla), ostracods, amphipods, midge larvae, water boatmen (Corixidae), and pond snails (Anderson, 1968).
>
> Nothing has been published on feeding ecology of post-metamorphic juveniles or adults. Based on captive individuals, they are presumed to take a wide variety of invertebrate and small vertebrate prey. (Catherine's note: There are publications, but most deal with functional morphology and behavior instead of specific prey types.)
>
> For tiger salamander (Ambystoma tigrinum)
>
> Tiger salamander larvae are gape-limited, size selective feeders. They